

The “full simulation” scripts

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“Full Simulation”

- Detailed detector simulation
- Dead channels, coverage
- Trigger simulation
- Production consistent with 4.8.4x
- Put beam where it was on data for that run
- Ancillary features:
 - Handling of decay modes
 - QQ vs EvtGen
 - Bgen/Pythia/FakeEvent
 - Figures out what you want from the decay file
 - Complains enough in log files to detect common mistakes
 - Integration of several run#

Urban Myths

- Custom code
 - There is no custom code: this is just a set of scripts.
However some older versions of the offline (pre 4.11.1 basically) require tweaks/fixes to the executables
- No documentation

See http://www-cdf/internal/physics/bottom/control/montecarlo/Full_Simulation.html

Not perfect, but answers 98% of the questions I get by e-mail

Moving to CVS

- Flaw: there is no history
- Can we have a CVS package for a bunch of scripts? That would be great!
- Basically after 4.11.1 it's only scripts
 - Need a **little cleanup** from my part
 - Needs **patience**
 - ?Needs to move to 4.11.x production?
- Three major open issues

Beamlines

- The SVT simulation **needs** to use the beamlines SVT measured on data for each run#
- Right now I generate beamlines using **my own CPU** quotas on CAF and store them in an ASCII file. (Could I use CDFMC for this?)
- ASCII file is updated on svtsim package, in CVS head
- Several reasons why you want to move to a database entry:
 - L3 will use these same beamlines for Si tracking
 - Can be easily generated at production, or even in L3
 - Could be used for offline tracking of beam movements (depending on time granularity of information)
- We need to agree on what we want to store!
- I have no expertise in database handling, need help!

ProductionExe

- 4.11.1 **!=** 4.9.1hpt3 and earlier
- Data we are using **IS** 4.9.1hpt3 like
- Would like to keep a switch in the scripts that lets you use 4.9.1hpt3 production, even if this means cross depending on an older release

L2 Decision

- Custom package for applying L2 decision
- L2Sim had discrepancies with this last time it was checked (months ago)
- L3 simulation is completely missing
- It would be great to at least get up to L2 without custom patches

If everybody agrees

- $O(1 \text{ day})$ scripts in repository (custom package?)
- $O(1\text{-}2 \text{ weeks})$ move to use those rather than the tarball
- $O(?)$ beamlines in the database
- ? Need to be somehow in the loop to hear about changes that could affect these scripts. Is it possible to be warned of changes to trgsim/cdfSim ?